Express Mail No. EV 330857135

Mailed: August 19, 2003

Attorney Docket No.: 015280-257300 DHHS Ref. E-148-1998/1-US-04

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

GEORGE N. PAVLAKIS

Examiner:

Application No.:

Art Unit:

Filed: Herewith

MOLECULAR CLONES WITH

MUTATED HIV GAG/POL, SIV GAG

AND SIV ENV GENES

INFORMATION DISCLOSURE

STATEMENT

UNDER 37 CFR §1.97 AND §1.98

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

For:

Applicants bring to the Examiner's attention the related patent application, U.S. Serial No. 09/872,733 filed June 1, 2001, which is relied upon for an earlier filing date under 35 U.S.C. §120. Applicants respectfully request that the references supplied in compliance with 37 C.F.R. §1.97 in said parent application, as well as those cited during its examination, be made of record. For the convenience of the Examiner, copies of the Information Disclosure Statements dated July 16, 2001, October 15, 2001 and January 31, 2003, as well as the forms PTO-1449 and PTO/SB/08B, filed in the parent application are attached. Copies of the documents will be found in said parent application.

Respectfully, submitted,

Jean M. Lockyer, Philip

TOWNSEND and TOWNSEND and CREW LLP Two Embarcadero Center, 8th Floor San Francisco, California 94111-3834 (415) 576-0200 Fax (415) 576-0300 JML/mcd - 60019445 v1 I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to:

Attorney Docket No.: 015280-257100US

Assistant Commissioner for Patents

Washington, D.C. 20231

TOWNS FIND and TOWNSEND and CREW LLP

11101 11 10

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

George N. Pavlakis

Application No.: 09/872,733

Filed: June 1, 2001

For: MOLECULAR CLONES WITH MUTATED HIV GAG/POL, SIV GAG

AND SIV ENV GENES

Examiner: Dave Trong Nguyen

Art Unit: 1632

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT UNDER 37

CFR §1.97 and §1.98

Assistant Commissioner for Patents Washington, D.C. 20231

Sir:

The reference cited on attached form PTO/SB/08B is being called to the attention of the Examiner. A copy of the reference is enclosed.

Also enclosed is a copy of the Search/Examination report issued in a corresponding PCT application.

It is respectfully requested that the cited reference be expressly considered during the prosecution of this application, and the reference be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no

George N. Pavlakis

Application No.: 09/872,733

Page 2

representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

This IDS is being filed before the mailing date of the final Office Action or Notice of Allowance.

Please charge the IDS fee to Deposit Account No. 20-1430 in accordance with the accompanying Fee Transmittal PTO/SB/17. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,

Jean M. Lockyer, Ph.D. Reg. No. 44,879

TOWNSEND and TOWNSEND and CREW LLP Two Embarcadero Center, 8th Floor San Francisco, California 94111-3834

Tel: 415-576-0200 Fax: 415-576-0300

JML:mcd

Unsaved Document

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B/PTO		Complete if Known			
INFORMATION DIGGLOCUES	Application Number	09/872,733			
INFORMATION DISCLOSURE	Filing Date	June 1, 2001			
STATEMENT BY APPLICANT	First Named Inventor	George N. Pavlakis			
	Art Unit	1632			
(use as many sheets as necessary)	Examiner Name	Dave Trong Nguyen			
Sheet 1 of 1	Attorney Docket Number	015280-257100US			

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T2
	CA	NGO et al., "Comutational Complexity, Protein Structure Prediction, and the Levinthal Paradox," <u>The Protein Folding Problem and Tertiary Structure Prediction</u> , K. Merz, Jr. and S. Le Grand, Editors (1994) pages 491-495	
			1
			1
			-
		*	
	-		1.
			+-
	1		+

Examiner	Date	
Signature	Considered	

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231. Unsaved Document

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s)

George Pavlakis

Group Art Unit: Beena Puri, Ph.D.

Serial No

09/872,733

Examiner: 1633

Filed

June 1, 2001

For

MOLECULAR CLONES WITH MUTATED HIV GAG/POL, SIV GAG AND SIV

ENV GENES

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

COMMISSIONER FOR PATENTS Washington, D.C. 20231

Sir:

This Supplemental Information Disclosure Statement is filed in accordance with 37 C.F.R. §§1.56, 1.97 and 1.98. The items listed on Form PTO-1449, a copy of which is enclosed, may be deemed to be pertinent to the above-identified application and are made of record to assist the Patent and Trademark Office in its examination of this application. The Examiner is respectfully requested to fully consider the items and to independently ascertain their teaching.

this ap	pl	ication. The Examiner is respectfully requested to fully consider the items and to independently ascertain
their t	eac	ching.
1. [-	For each of the following items listed on the enclosed copy of Form PTO-1449 that is not in the English language, an English language translation of that item or a portion thereof or a concise explanation of the relevance of that item is enclosed:
ງ [1	For each of the following items listed on the enclosed copy of Form PTO-1449 that is not in the English
4۰ [J	language, a concise explanation of the relevance of that item is incorporated in the specification of the above-identified application.
3. []	Any copy of the items listed on the enclosed copy of Form PTO-1449 that is not enclosed with this Information Disclosure Statement was previously cited by or submitted to the Patent and Trademark Office in application Serial No, filed

656313 vl

4.	[X		No fee is due under 37 C.F.R. §1.17(p) for this Information Disclosure Statement since it is being pliance with:
		[]	37 C.F.R. §1.97(b)(1), within three months of the filing date of the above-identified application for filing date of the continued prosecution application filed on; or
		[]	37 C.F.R. §1.97(b)(2), within three months of the date of entry into the national stage as set forth in §1.491 in an international application; or
		[X]	37 C.F.R. §1.97(b)(3), before the mailing date of a first Office Action on the merits, whichever event occurred last.
5.	[]	complia date of	s due under 37 C.F.R. §1.17(p) for this Information Disclosure Statement since it is being filed in nce with 37 C.F.R. §1.97(c), after the period specified in paragraph 4 above but before the mailing a final action or a Notice of Allowance (where there has been no prior final action), and is anied by one of the certifications pursuant to 37 C.F.R. §1.97(e) set forth in paragraph 9 below.
6.	[]	complia	due under 37 C.F.R. §1.17(p) for this Information Disclosure Statement since it is being filed in ance with 37 C.F.R. §1.97(c), after the period specified in paragraph 4 above but before the mailing a final action or a notice of allowance (where there has been no prior final action):
		[]	A check in the amount of \$240.00 is enclosed in payment of the fee.
		[]	Charge the fee to Deposit Account No. 13-4500. Order No A DUPLICATE COPY OF THIS SHEET IS ATTACHED.
7.	[]	complia	due under 37 C.F.R. §1.17(i)(1) for this Information Disclosure Statement since it is being filed in ance with 37 C.F.R. §1.97(d), after the mailing date of a final action or a notice of allowance, wer comes first, but before payment of the issue fee, and is accompanied by:
		a. []	one of the certifications pursuant to 37 C.F.R. §1.97(e) set forth in paragraph 9 below; and
		b. []	the attached petition requesting consideration of this Information Disclosure Statement; and
		c. []	the fee due under 37 C.F.R. §1.17(i)(1) which is paid as set forth in paragraph 10 below.
8.	[]		s due under 37 C.F.R. §1.17(i)(1) for this Information Disclosure Statement since it is being filed in ance with:
		a. []	37 C.F.R. §1.313(b)(3), after the issue fee has been paid and information cited in this Information Disclosure Statement may render at least one claim unpatentable and is accompanied by the attached Petition To Withdraw Application From Issue;
		b. []	37 C.F.R. §1.313(b)(5), after the issue fee has been paid and information cited in this Information Disclosure Statement is to be considered in a Continuation application upon abandonment of the instant application and is accompanies by the attached Petition To withdraw Application From Issue.
		c. []	The fee due under 37 C.F.R. §1.17(i)(1) is paid as set forth in paragraph 10 below.

Docket No. 2026-4287US1

9.	[]	I hereby certify that each item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement.		
		[]	was cited in a communication from to my knowledge after make reasons	mation in the Information Disclosure Statement filed herewith a foreign patent office in a counterpart foreign application or, able inquiry, was known to any individual designated in or to the filing of this Information Disclosure Statement.
10. [] A check in the amount of \$130.00 is enclosed in payment of the fee due under C.F.R. §1.17(i)(1).			in payment of the fee due under C.F.R. §1.17(i)(1).	
		[]		17(i)(1) to Deposit Account No. 13-4500. Order No. ATE COPY OF THIS SHEET IS ATTACHED.
		[X]	required for this Information Disclo	by authorized to charge any additional fees which may be sure Statement, or credit any overpayment to Deposit Account <u>US1</u> . A DUPLICATE COPY OF THIS SHEET IS
				Respectfully submitted, MORGAN & FINNEGAN, L.L.P.
Dat	ed:	October	15, 2001	By: Mary Morry Registration No. 34,398
				Registration No. 34,398

CORRESPONDENCE ADDRESS:

MORGAN & FINNEGAN, L.L.P 345 Park Avenue New York, New York 10154 (212) 758-4800 (212) 751-6849 Facsimile

FORM: IDS.NY Rev. 05/26/98

FORM PTO-1449 INFORMATION DISCLOSURE CITATION				2020	orney Docket: 6-4287US1 licant:	Serial N 09/872,7		
				Filir	George Pavlakis Filing Date: Group Art Unit: June 1, 2001 1633			
			U.S. PA		OCUMENTS			
Examiner Initial	Patent Number	Issue Date			Name	Class	Sub-Class	Filing Date
		FC	REIGN	PATEN	T DOCUMENTS			
Examiner			T				T	
Initial	Patent Number	Issue Dat			Country	Class	Sub-Class	Translation
	WO 98/17816	April 30, 1998		PCT				☐ Yes ☐ No
	WO 98/46083	October 22, 19		PCT			<u> </u>	
	WO 99/04026	January 28, 19		PCT				
	WO 99/15641	April 1, 1999		PCT PCT				
	WO 99/30742 WO 99/51754	June 24, 1999 October 14, 19		PCT			 	
	WO 00/65076	November 2,		PCT				
<u> </u>	0 00,030,0	11010110012,	1					L
					ENTS (continued)			
		al Vector Pseudo			r into CD34+ Cells wular Stomatitis Virus			
Amado, R.G. et al., "Lentiviral Vectors – the Promise of Gene Therapy Within Reach?", Science, 285:674-676 (Jul 1999)								
	Lentiviral Vector	in Non-Human	Primates	", Blood,	elected CD34 ⁺ Cells 7 92 (Suppl. 1):383b, 2	Abstract #4648.	.5 (1998)	
					entivirus gene therap			
	(1997)				Therapy of Cystic Fil			
	Genetics, 17:314-	-317 (1997)			vered directly into liv			ctors", Nature
					us Vectors", J. Virol.			T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	J. Virol., 72:811-	816 (1998)			ivirus Vector Based o			
					e Therapy", Frontiers			
					n Immunodeficiency ', J. Virol., 74:4839-4		IIV-1)-Based	Vector That
		, "Stable and eff	ficient ge		er into the retina usin		l lentiviral vec	tor", Proc. Natl.
Examiner	1 11000. 001.		(4,2,1)		Date Considered			
					 			
EXAMINER:	Initial if reference considerable Draw line through citation Include copy of this form	n if not in conformat	nce and not	t considered				

Page 2 of 2

FORM PTO-1449

INFORMATION DISCLOSURE CITATION

		50 - 01
Attorney Docket:	Serial No.:	
2026-4287US1	09/872,733	
Applicant:		
George Pavlakis		
Filing Date:	Group Art Unit:	
June 1, 2001	1633	

	OTHER DOCUMENTS (continued)
	Miyoshi, H. et al., "Development of a Self-Inactivating Lentivirus Vector", J. Virol., 72:8150-8157 (1998)
	Miyoshi, H. et al., "Transduction of Human CD34 ⁺ Cells That Mediate Long-Term Engraftment of NOD/SCID Mice by HIV Vectors", Science, 283:682-686 (1999)
	Naldini, L. et al., "In Vivo Gene Delivery and Stable Transduction of Nondividing Cells by a Lentiviral Vector", Science, 272:263-267 (1996)
	Naviaux, R.K. et al., "The pCL Vector System: Rapid Production of Helper-Free, High-Titer, Recombinant Retroviruses", J. Virol., 70:5701-5705 (1996)
	Poeschla, E.M. et al., "Efficient transduction of nondividing human cells by feline immunodeficiency virus lentiviral vectors", Nature Med., 4:354-357 (1998)
	Reynolds, P.N. et al., "Viral vectors show promise in Colorado", Nature Biotechnology, 16:422-423 (1998)
	Soneoka, Y. et al., "A transient three-plasmid expression system for the production of high titer retroviral vectors", Nuc. Acids Res., 23:628-633 (1995)
	Srinivasakumar, N. et al., "The Effect of Viral Regulatory Protein Expression on Gene Delivery by Human Immunodeficiency Virus Type 1 Vectors Produced in Stable Packaging Cell Lines", J. Virol., 71:5841-5848 (1997)
	Sutton, R.E. et al., "Human Immunodeficiency Virus Type 1 Vectors Efficiently Transduce Human Hematopoietic Stem Cells", J. Virol., 72:5781-5788 (1998)
	Takahashi, M. et al., "Rescue from Photoreceptor Degeneration in the rd Mouse by Human Immunodeficiency Virus Vector-Mediated Gene Transfer", J. Virol., 73:7812-7816 (September 1999)
	Uchida, N. et al., "HIV, but not murine leukemia virus, vectors mediate high efficiency gene transfer into freshly isolated G ₀ /G ₁ human hematopoietic stem cells", Proc. Natl. Acad. Sci. USA, 95:11939-11944 (1998)
	Vinner, L. et al., "Gene gun DNA vaccination with Rev-independent synthetic HIV-1 gp160 envelope gene using mammalian codons", Vaccine, 17:2166-2175 (1999)
	Wagner, R. et al., "Rev-Independent Expression of Synthetic gag-pol Genes of Human Immunodeficiency Virus Type 1 and Simian Immunodeficiency Virus: Implications for the Safety of Lentiviral Vectors", Human Gene Therapy, 11:2403-2413 (2000)
T	White, S.M. et al., "Lentivirus Vectors Using Human and Simian Immunodeficiency Virus Elements", J. Virol, 73:2832-2840 (1999)
<u>-</u>	Wolff, J.A. et al., "The Cambrian period of nonviral gene delivery", Nature Biotechnology, 16:421-422 (1998)
	Zufferey, R. et al., "Multiply attenuated lentiviral vector achieves efficient gene delivery in vivo", Nature Biotechnology, 15:871-875 (1997)
	Zufferey, R. et al., "Self-Inactivating Lentivirus Vector for Safe and Efficient In Vivo Gene Delivery", 72:9873-988 (1998)
Examiner	Date Considered
	Initial if reference considered, whether or not citation is in conformance with MPEP §609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s)

George Pavlakis

Group Art Unit: To Be Assigned

Serial No

09/872,733

Examiner: To Be Assigned

Filed

June 1, 2001

For

MOLECULAR CLONES WITH MUTATED HIV GAG/POL, SIV GAG AND SIV

ENV GENES

INFORMATION DISCLOSURE STATEMENT

ASSISTANT COMMISSIONER FOR PATENTS Washington, D.C. 20231

Sir:

This Information Disclosure Statement is filed in accordance with 37 C.F.R. §§1.56, 1.97 and 1.98. The items listed on Form PTO-1449, a copy of which is enclosed, may be deemed to be pertinent to the above-identified application and are made of record to assist the Patent and Trademark Office in its examination of this application.

The	e Exa	miner is respectfully requested to fully consider the items and to independently ascertain their teaching.
1.	[X	For each of the following items listed on the enclosed copy of Form PTO-1449 that is not in the English language, an English language translation of that item or a portion thereof or a concise explanation of the relevance of that item is enclosed:
2.	[]	For each of the following items listed on the enclosed copy of Form PTO-1449 that is not in the English language, a concise explanation of the relevance of that item is incorporated in the specification of the above-identified application.
3.	[]	Any copy of the items listed on the enclosed copy of Form PTO-1449 that is not enclosed with this Information Disclosure Statement was previously cited by or submitted to the Patent and Trademark Offic in application Serial No, filed
1	ſŸ	No fee is due under 37 C F.R. 81 17(n) for this Information Disclosure Statement since it is being

4. [X] No fee is due under 37 C.F.R. §1.17(p) for this Information Disclosure Statement since it is being filed in compliance with:

623289 v1

		[X]	37 C.F.R. §1.97(b)(1), within three months of the filing date of the above-identified application for filing date of the continued prosecution application filed on <u>June 1, 2001</u> ; or
		[]	37 C.F.R. §1.97(b)(2), within three months of the date of entry into the national stage as set forth in §1.491 in an international application; or
		[X]	37 C.F.R. §1.97(b)(3), before the mailing date of a first Office Action on the merits, whichever event occurred last.
5.	[]	complia date of a	s due under 37 C.F.R. §1.17(p) for this Information Disclosure Statement since it is being filed in nee with 37 C.F.R. §1.97(c), after the period specified in paragraph 4 above but before the mailing a final action or a Notice of Allowance (where there has been no prior final action), and is anied by one of the certifications pursuant to 37 C.F.R. §1.97(e) set forth in paragraph 9 below.
б.	[]	complia	due under 37 C.F.R. §1.17(p) for this Information Disclosure Statement since it is being filed in nee with 37 C.F.R. §1.97(c), after the period specified in paragraph 4 above but before the mailing a final action or a notice of allowance (where there has been no prior final action):
		[]	A check in the amount of \$240.00 is enclosed in payment of the fee.
		[]	Charge the fee to Deposit Account No. 13-4500. Order No A DUPLICATE COPY OF THIS SHEET IS ATTACHED.
7.	[]	complia	due under 37 C.F.R. §1.17(i)(1) for this Information Disclosure Statement since it is being filed in since with 37 C.F.R. §1.97(d), after the mailing date of a final action or a notice of allowance, wer comes first, but before payment of the issue fee, and is accompanied by:
		a. []	one of the certifications pursuant to 37 C.F.R. §1.97(e) set forth in paragraph 9 below; and
		b. []	the attached petition requesting consideration of this Information Disclosure Statement; and
		c. []	the fee due under 37 C.F.R. §1.17(i)(1) which is paid as set forth in paragraph 10 below.
8.	[]		due under 37 C.F.R. §1.17(i)(1) for this Information Disclosure Statement since it is being filed in ance with:
		a. []	37 C.F.R. §1.313(b)(3), after the issue fee has been paid and information cited in this Information Disclosure Statement may render at least one claim unpatentable and is accompanied by the attached Petition To Withdraw Application From Issue;
		b. []	37 C.F.R. §1.313(b)(5), after the issue fee has been paid and information cited in this Information Disclosure Statement is to be considered in a Continuation application upon abandonment of the instant application and is accompanies by the attached Petition To withdraw Application From Issue.
		c. []	The fee due under 37 C.F.R. §1.17(i)(1) is paid as set forth in paragraph 10 below.
9.	[]	in a cor	y certify that each item of information contained in the Information Disclosure Statement was cited mmunication from a foreign patent office in a counterpart foreign application not more than three prior to the filing of this Information Disclosure Statement

Docket No. 2026-4287US1

I hereby certify that no item of information in the Information Disclosure Statement filed herewith
 was cited in a communication from a foreign patent office in a counterpart foreign application or,
to my knowledge after make reasonable inquiry, was known to any individual designated in
§1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

10. [] A check in the amount of \$130.00 is enclosed in payment of the fee due under C.F.R. §1.17(i)(1).

- [] Charge the fee due under C.F.R. §1.17(i)(1) to Deposit Account No. 13-4500. Order No.

 A DUPLICATE COPY OF THIS SHEET IS ATTACHED.
- [X] The Assistant Commissioner is hereby authorized to charge any additional fees which may be required for this Information Disclosure Statement, or credit any overpayment to Deposit Account No. 13-4500. Order No. 2026-4287US1. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.

Respectfully submitted, MORGAN & FINNEGAN, L.L.P.

Dated: July 16, 2001

Mary J. Morry
Registration No. 34,398

CORRESPONDENCE ADDRESS:

MORGAN & FINNEGAN, L.L.P 345 Park Avenue New York, New York 10154 (212) 758-4800 (212) 751-6849 Facsimile

FORM: IDS.NY Rev. 05/26/98

EODM PTO 1440	Attorney Docket: 2026-4287US1	Serial No.: 09/872,733
FORM PTO-1449	Applicant:	- <u></u> -
INFORMATION DISCLOSURE CITATION	George Pavlakis	
INFURIMATION DISCLUSURE CITATION		

George Pavlakis
Filing Date: Group Art Unit:
June 1, 2001 To Be Assigned

U.S. PATENT DOCUMENTS

Examiner Initial	Patent Number	Issue Date	Name	Class	Sub-Class	Filing Date
	6,174,666 B1	Jan 16, 2001	Pavlakis and Felber			3/27/92
	5,972,596	Oct 29, 1999	Pavlakis and Felber			1994
	5,965,726	Oct 12, 1999	Pavlakis and Felber			5/2/97
	5,786,464	Jul 28, 1998	Seed and Haas			7/28/98
	5,795,737	Aug 18,1998	Seed			9/22/95
	6,114,148	Sep 05, 2000	Seed and Haas			

FOREIGN PATENT DOCUMENTS						
Examiner Initial	Patent Number	Issue Date	Country	Class	Sub-Class	Translati n
	WO 90/11092	Oct. 1990	PCT			☐ Yes ☐ No
	WO 93/20212	Oct 14, 1993	PCT			Yes No
	WO 96/09378	Mar 28,1996	PCT			☐ Yes ☐ No
	WO 97/11086	Mar 27,1997	PCT			☐ Yes ☐ No
	WO 98/12207	Mar 26,1998	PCT			☐ Yes ☐ No
	WO 98/34640	Aug 13,1998	PCT			Yes No
·	WO 00/39302	Jul 6, 2000	PCT			☐ Yes ☐ No
	WO 00/39303	Jul 6, 2000	PCT			☐ Yes ☐ No
	WO 00/39304	Jul 6, 2000	PCT			☐ Yes ☐ No
	WO 99/61596	Dec. 2, 1999	PCT			☐ Yes ☐ No

OTHER DOCUMENTS (continued)
Nappi F, Schneider R, Zolotukhin A, Smulevitch S, Michalowski D, Bear J, Felber BK, and Pavlakis GN. "Identification of a Novel Posttranscriptional Regulatory Element by Using a rev- and RRE-Mutated Human Immunodeficiency Virus Type 1 DNA Proviral Clone as a Molecular Trap." J Virol. 2001 May;75(10):4558-69.
Qiu JT, Liu B, Tian C, Pavlakis GN, Yu XF. "Enhancement of primary and secondary cellular immune responses against human immunodeficiency virus type 1 gag by using DNA expression vectors that target Gag antigen to the secretory pathway." J Virol. 2000 Jul;74(13):5997-6005.
Qiu JT, Song R, Dettenhofer M, Tian C, August T, Felber BK, Pavlakis GN, Yu XF. "Evaluation of novel human immunodeficiency virus type 1 Gag DNA vaccines for protein expression in mammalian cells and induction of immune responses." J Virol. 1999 Nov;73(11):9145-52.

Examiner		Date Considered
EXAMINER:	Initial if reference considered, whether or not citation is in conform Draw line through citation if not in conformance and not considere Include copy of this form with next communication to Applicant.	•

Page 2 of 3

FORM PTO-1449

INFORMATION DISCLOSURE CITATION

Attorney Docket:	Serial No.:	
2026-4287US1	09/872,733	
Applicant:		
George Pavlakis		
Filing Date:	Group Art Unit:	
June 1, 2001	To Be Assigned	

OTHER DOCUMENTS (continued)		
Schneider R, Campbell M, Nasioulas G, Felber BK, Pavlakis GN. "Inactivation of the human immunodeficiency virus type 1 inhibitory elements allows Rev-independent expression of Gag and Gag/protease and particle formation." J Virol. 1997 Jul;71(7):4892-903.		
Afonina E, Neumann M, Pavlakis GN. "Preferential binding of poly(A)-binding protein 1 to an inhibitory RNA element in the human immunodeficiency virus type 1 gag mRNA." J Biol Chem. 1997 Jan 24;272(4):2307-11.		
Schwartz S, Campbell M, Nasioulas G, Harrison J, Felber BK, Pavlakis GN. "Mutational inactivation of an inhibitory sequence in human immunodeficiency virus type 1 results in Rev-independent gag expression." J Virol. 1992 Dec.; 66 (12):7176-82.		
Andre S, Seed B, Eberle J, Schraut W, Bultmann A, Haas J. "Increased immune response elicited by DNA vaccination with a synthetic gp120 sequence with optimized codon usage." J Virol. 1998 Feb; 72(2):1497-503.		
Haas J, Park EC, Seed B. "Codon usage limitation in the expression of HIV-1 envelope glycoprotein." Curr Biol. 1996 Mar 1:6(3):315-24.		
Ikemura, T. "Codon Usage and tRNA Content in Unicellular and Multicellular Organisms." Mol. Biol. Evol. 2(1):13-34 (1985)		
T. Maruyama et al., "Codon usage tabulated from the GenBank genetic sequence data", Nucl. Acids Res. 14:r151-r197 (1986)		
S. Aota et al., "Codon usage tabulated from the GenBank genetic sequence data", Nucl. Acids Res. 16:r315-r402 (1988)		
Shiver, et al., "DNA Vaccine-Mediated Cellular Immunity Against HIV-1 gag And env," abstract from the Conference on Advances in aids Vaccine Development; 8th Annual Meeting of the National Cooperative Vaccine Development Groups for AIDS (NCVDGs), February 11-15, 1996		
Albert B Sabin, "Improbability of effective vaccination against human immunodeficiency virus because of its intracellular transmission and rectal portal of entry", Proc. Natl. Acad. Sci. USA, 89:8852-8855 (September 1992) ("Reference 1")		
Saladin Osmanov et al., "HIV-1 Genetic Variability: Implications for the Development of HIV Vaccines", Antibiotics and Chemotherapy, 48:30-38 (1996) ("Reference 2")		
Kavita S. Lole, et al., "Full-Length Human Immunodeficiency Virus Type 1 Genomes from Subtype C-Infected Seroconverters in India, with Evidence of Intersubtype Recombination", Journal of Virology, 73:152-160 (January 1999) ("Reference 3")		
"Nikkei Biotechnology Annual Report '98", Ed. NIKKEI BIOTECH, (Nov. 30, 1997), Nikkei Business Publications, Inc., p. 214 (English translation of table on page 214, lines 30-35 entitled "The recent stream of research and development on AIDS") ("Reference 4")		
R.I. Connor, et al., "Immunological and Virological Analyses of Persons Infected by Human Immunodeficiency Virus Type 1 while Participating in Trials of Recombinant gp120 Subunit Vaccines", Journal of Virology, 72:1552-1576 (February 1998) ("Reference 5")		
"Nikkei Biotechnology Annual Report '97", Ed. NIKKEI BIOTECH, (Nov. 30, 1996), Nikkei Business Publications, Inc., p. 246 (English translation of a table on page 246, lines 43-46 entitled "The recent stream of biotechnological research on AIDS") ("Reference 6")		

Examiner		Date Considered
1	Initial if reference considered, whether or not citation is in conformation of the through citation if not in conformance and not considere include copy of this form with next communication to Applicant.	nance with MPEP §609. d.

Page 3 of 3

FORM PTO-1449

INFORMATION DISCLOSURE CITATION

		I ago J OI .
Attorney Docket:	Serial No.:	
2026-4287US1	09/872,733	
Applicant:		
George Pavlakis		
Filing Date:	Group Art Unit:	
June 1, 2001	To Be Assigned	

	OTHER DOCUMENTS (continued)
	"Nikkei Biotechnology Annual Report '99", Ed. NIKKEI BIOTECH, (Nov. 30, 1998), Nikkei Business Publications,
	Inc., p. 79 (English translation of table on p. 79, lines 14-17 entitled "The main stream of research and development on AIDS") ("Reference 7")
	Ulmer JB., Donnelly JJ., Parker SE., Rhodes GH., Felgner PL., Dwarki VJ., Gromkowski SH., Deck RR., DeWitt
1	CM., Friedman A., Hawe LA., Leander KR., Martinez D., Perry HC., Shiver JW., Montgomery DL., Liu MA.
	"Heterologous Protection Against Influenza by Injection of DNA Encoding a Viral Protein." Science 259:1745-1748 (March 19, 1993)
	Afonina E., Stauber R., Pavlakis GN. "The Human Poly(A)-binding Protein 1 Shuttles between the Nucleus and the Cytoplasm", The Journal of Biological Chemistry, 273:13015-13021 (May 22, 1998)
	Solomin L., Felber BK., Pavlakis GN. "Different Sites of Interaction for Rev, Tev, and Rex Proteins within the Rev- Responsive Element of Human Immunodeficiency Virus Type 1", Journal of Virology, 64:6010-6017 (Dec. 1990)
	Benko DM., Robinson R., Solomin, L., Mellini M., Felber BK., Pavlakis, GN. "Binding of Trans-Dominant Mutant
	Rev Protein of Human Immunodeficiency Virus Type 1 to the Cis-Acting Rev-Responsive Element Does Not Affect
	the Fate of Viral mRNA", The New Biologist, 2:1111-1122 (Dec. 1990)
	Schwartz S., Felber BK., Pavlakis GN., "Distinct RNA Sequences in the gag Region of Human Immunodeficiency
	Virus Type 1 Decrease RNA Stability and Inhibit Expression in the Absence of Rev Protein", Journal of Virology, 66:150-159 (Jan. 1992)
	D'Agostino DM., Felber BK., Harrison JE., Pavlakis GN. "The Rev Protein of Human Immunodeficiency Virus
}	Type 1 Promotes Polysomal Association and Translation of gag/pol and vpu/env mRNAs", Molecular and Cellular Biology, 12:1375-1386 (March 1992)
	Myers G., Pavlakis GN. "Evolutionary Potential of Complex Retroviruses", The Retroviridae, 1:51-105 (1992)
1 :	Zolotukhin AS., Valentin A., Pavlakis GN., Felber BK. "Continuous Propagation of RRE(_) and Rev(_)RRE(_)
	Human Immunodeficiency Virus Type 1 Molecular Clones Containing a cis-Acting Element of Simian Retrovirus Type 1 in Human Peripheral Blood Lymphocytes", Journal of Virology, 68:7944-7952 (Dec. 1994)
	Tan W., Felber BK., Zolotukhin AS., Pavlakis GN., Schwartz S. "Efficient Expression of the Human Papillomavirus
1 1.	Type 16 L1 Protein in Epithelial Cells by Using Rev and the Rev-Responsive Element of Human Immunodeficiency
]	Virus or the cis-Acting Transactivation Element of Simian Retrovirus Type 1", Journal of Virology, 69:5607-5620
	(Sept. 1995)
,	Wolff JA., Malone RW., Williams P., Chong W., Acsadi G., Jani A., Felgner PL. "Direct Gene Transfer into Mouse
	Muscle in Vivo" Science, 247:1465-1468 (March 23, 1990)
	Wolff JA., Ludtke JJ., Acsadi G., Williams P., Jani A. "Long-term persistence of plasmid DNA and foreign gene
l!·	expression in mouse muscle", Human Molecular Genetics, 1(6):363-369 (1992)
}	Egan MA., Charini WA., Kuroda MJ., Schmitz JE., Racz P., Tenner-Racz K., Manson K., Wyand M., Lifton MA.,
1 1	Nickerson CE., Fu T., Shiver JW., Letvin NL. "Simian Immunodeficiency Virus (SIV) gag DNA-Vaccinated Rhesus
[]	Monkeys Develop Secondary Cytotoxic T-Lymphocyte Responses and Control Viral Replication after Pathogenic
L	SIV Infection" Journal of Virology, 74(16):7485-7495 (Aug. 2000)

Examiner		Date Considered
EXAMINER:	Initial if reference considered, whether or not citation is in conformance with MPEP §609. Draw line through citation if not in conformance and not considered.	
	Include copy of this form with next communication to Applicant.	